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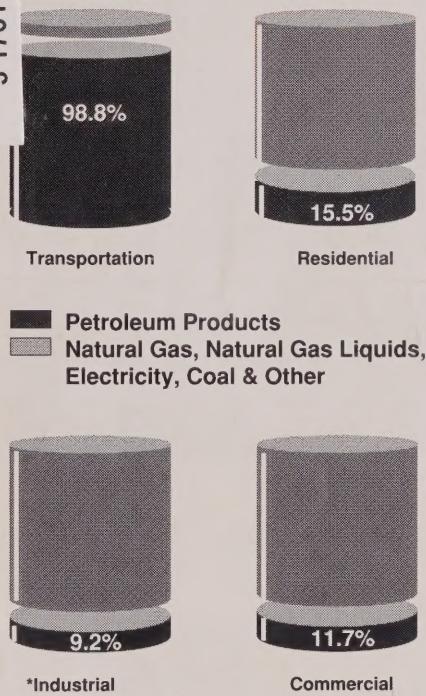
ONTARIO ENERGY FACTS

CONTINGENCY PLANNING FOR OIL SHORTAGES THE TRANSPORTATION SECTOR



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Ontario Oil Dependence by Sector



*Industrial

*Excludes Petrochemical Use.

Source: Statistics Canada ~ 57-003,
Ontario Ministry of Energy, 1985

The transportation sector is almost totally dependent on fuel derived from crude oil.

The fact that industrialized countries are vulnerable to oil supply disruptions was amply demonstrated by the two oil supply crises in the 1970s. The International Energy Agency (IEA) was formed to help minimize the effects of this vulnerability. Canada, as a member of IEA, has agreed to share its oil supplies in the event of a crude oil shortage in one or more IEA countries, and Ontario is obliged to support the federal government's initiatives in balancing demand to available supply in a crude oil shortage.

An oil supply disruption, whether gradual or abrupt, will have an immediate impact on the transportation sector. Actions will have to be taken to reduce consumption, while maintaining mobility in the transport of people and goods. Advance planning can ensure an effective and rapid response that is tailored to the needs of the various transportation users.

Further information on Ontario's and Canada's obligations is available in the Ontario Energy Facts publication, Oil Supply Disruptions: Protecting Ontario's Interests.

The fact sheet explains:

- How oil is used in the transportation sector.
- Why the transportation sector is particularly dependent on oil.
- How Ontario is preparing for oil shortages.
- How consumption can be reduced in the transportation sector.
- How you can prepare for an oil shortage.

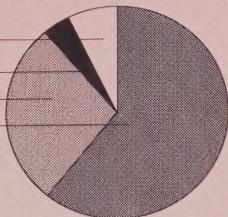
Transportation Energy Profile 1985 - 2000

In 1985, Ontario's transportation sector accounted for 61 per cent of the province's total oil consumption. That percentage could increase to 65 per cent by the year 2000.

Ontario Oil Use by Sector

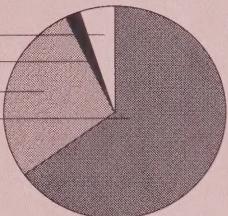
1985

| | |
|----------------|-----|
| Residential | 7% |
| Commercial | 4% |
| Industry | 28% |
| Transportation | 61% |



2000

| | |
|----------------|-----|
| Residential | 5% |
| Commercial | 2% |
| Industry | 28% |
| Transportation | 65% |



Source: Statistics Canada, ~ 57-003, Ontario Ministry of Energy 1986

Ontario's industrial, residential and commercial sectors, have access to several widely available fuels, other than oil. But this is not the case in the transportation sector where dependence, and hence vulnerability to oil supply disruptions are pronounced.

Ontario's total consumption of gasoline and diesel fuel in 1985 was 14.2 billion litres: 55 per cent was used in automobiles; 36 per cent by the trucking industry and 9 per cent by rail, marine, bus and other modes of transport.

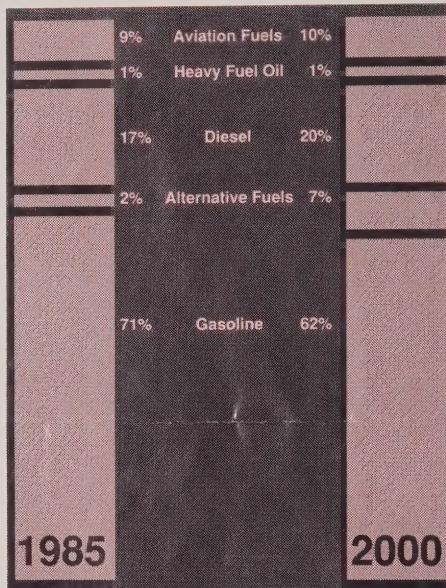
By the year 2000 total transportation energy demand is expected to be about 10 per cent higher than in 1985. Most of this growth will come from increased use of diesel fuel.

Total gasoline use will continue to decline, even though automobile ownership will increase from less than four million vehicles in 1985 to about five million by the year 2000. Further improvements in automobile fuel efficiency and increased substitution of alternative fuels and diesel for gasoline will contribute to this reduction.

Diesel fuel use in Ontario could increase by 30 per cent by the year 2000. About three-quarters of this projected increase will come from growth in Ontario's economy, which will lead to an increase in freight shipments by diesel-powered trucks.

No increase is expected in the demand for aviation fuel, since projected improvements in efficiency will offset the anticipated growth in passenger demand.

Transportation Fuel Shares



Total Consumption
568 PJ

Total Consumption
626 PJ

Source: Statistics Canada ~ 57-003,
Ontario Ministry of Energy, October 1986

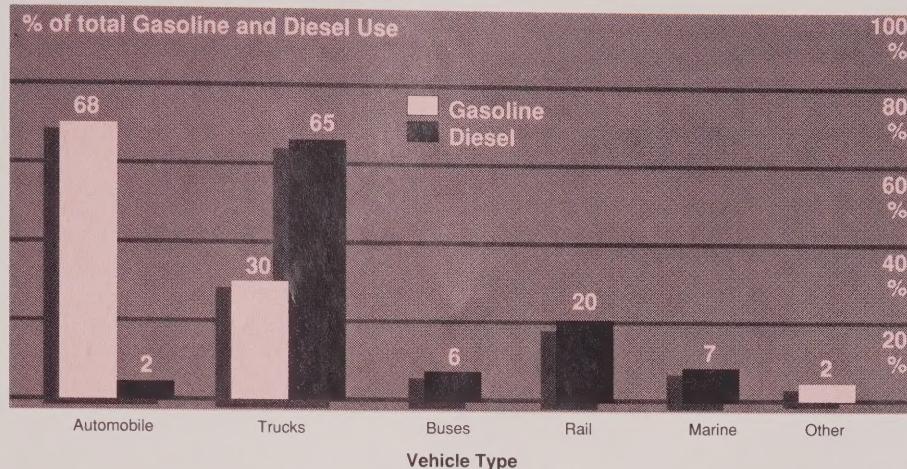
Moving People

Privately owned automobiles account for over 90 per cent of the estimated 121.5 billion passenger kilometres travelled in Ontario each year. Aircraft, trains, buses, subways and streetcars account for the remaining 10 per cent.

Should Ontario experience an oil shortage, significant reductions in transportation fuel use can be achieved through measures aimed at reducing automobile fuel consumption. Taking shorter trips, adopting alternate modes of travel, and switching to public transit or carpooling will make important contributions.

Public transit is many times more efficient than automobile travel, in terms of fuel usage per passenger kilometre. Almost three-quarters of

Ontario Gasoline and Diesel Consumption by Transportation Mode



Source: Statistics Canada, Min. of Energy, 1985.

Ontario citizens have access to transit systems and 18 per cent of Ontarians use public transit as the primary mode of travel to work. With 59 transit systems serving 73 municipalities, and more than 5,000 buses, subway cars, trolleys, and rail vehicles, Ontario has a well-developed transit network which can be exploited in the event of fuel shortages. These vehicles mainly use diesel fuel, and consume less than one per cent of Ontario's transportation energy requirements.

Moving Goods

In 1985, 30 per cent of all Ontario transportation energy was used by trucks moving Ontario's goods to market. By the year 2000, roughly 32 per cent will be required for this purpose.

The increased use of trucks for moving goods reflects a continuing trend of the past decade. Compared to rail and marine, trucks make distributing goods easier due to their greater versatility and mobility. Trains and lake freighters are best suited for bulk deliveries to a small number of major distribution points. The growing use of containerized freight has also expanded the volume of goods transported by trucks. By the year 2000, consumption of diesel by marine and rail users is expected to rise to 30 per cent of annual diesel consumption, compared to 27 per cent in 1985.

The Provincial Government Plan

Ontario's Oil Shortage Contingency Plan is designed to lower demand for oil in ways that will minimize the impact of any shortages on day-to-day life:

- The provincial government will take the lead by restraining its own demand for oil, and all ministries have assessed their needs and developed contingency plans.
- Essential government services (such as ambulance, fire and police services) to the public will be maintained.
- Regular liaison will take place with the oil industry.
- The general public and firms in the transportation, industrial and commercial sectors will be called upon to reduce their oil consumption. Information will be available on possible actions to reduce demand, and discussions are currently taking place to ensure a coordinated approach between the provincial government and key oil users.
- Information on the impact of the shortage and its management will be provided regularly through the media. Consumers will be informed of effective and inexpensive ways to reduce their use of gasoline and heating oil.
- An emergency management centre, including an energy emergency hotline, will provide emergency information and assistance to the public.

Reducing Transportation Fuel Consumption

Transportation of People

The fastest way of reducing oil consumption will come from voluntary cut-backs in automobile travel. Increased use of public transit along with ride sharing and carpooling, are the three best methods. The elimination or reduction of non-essential travel can also save large amounts of fuel. Fuel consumption can be further reduced through improved vehicle maintenance and better driving habits.

Should fuel shortages become serious, additional mandatory measures to reduce fuel consumption may become necessary.

Transportation of Goods

Reducing freight fuel use is more difficult than for passenger transport, but important reductions can be made. Opportunities are available to improve fuel use productivity, both in the transportation of products and in the existing distribution system. Reducing empty back-hauls and part-loads are two good examples of how fuel can be saved in the trucking industry.

What Can You Do?

Be prepared. An oil shortage could occur at any time. Effective contingency planning will permit the orderly management of and response to an emergency, whether it is gradual or sudden.

1. Get involved. Develop a contingency plan that will help implement emergency measures during an oil shortage. Determine if your municipality has a contingency plan. Share information and ideas with other businesses and all levels of government.
2. Examine your organization's vehicle use patterns and total oil consumption. Identify your essential services and those where fuel use could be reduced without major disruptions.
3. Identify how you would participate in the management of an actual oil shortage and how your contingency plan would be implemented. What would your chain of command be for efficient implementation of fuel reduction measures? What would your priorities be? With whom would you liaise at the company level? The municipal level? The provincial level? The federal level?

Oil supplies are stable today. So now's the time to act - to minimize the costs and inconvenience of an oil shortage situation in the future.

For additional information contact:

**Communications Branch, Ontario
Ministry of Energy**

62 Wellesley Street West,
Toronto, Ontario M7A 2B7
(416) 965-3246



Ontario

Ministry
of
Energy

Robert C. Wong
Minister

